Tronox Joint Agency Meeting - Notes

June 16th 8:30 am to 5:00 pm

1010 Indian School Road NW, Class Room 234, Albuquerque, NM 87104

Overall Outcomes for this meeting:

- 1) Continue our shared vision efforts and continue to build our Tronox joint agency working team;
- 2) Present a general Tronox project update;
- 3) Review Tronox Project Timelines;
- 4) Provide a update on Navajo Nation workforce development and contracting;
- 5) Check in on timeline; and
- 6) Discuss Tronox related work in FY16 and FY17



Photo by Randy Nattis

Summary

Approximately 50 people gathered on June 16, 2016 in Albuquerque for the Tronox Joint Agency meeting. The focus was on sharing current project status and identifying key activities for the remainder of 2016; reviewing the project timeline created during the March 2016 meeting; providing an update on Navajo Nation workforce development and contracting; and reviewing FY17 proposed projects.

Action Items identified during the meeting

| Wh | nat | Who | By When | Status |
|----|--|--|-----------------------|----------|
| 1. | Follow up with Ranalda Tsosie re collaboration at Cove. | Secody Hubbard; Wilson Yee; Ranalda Tsosie | June 17 th | complete |
| 2. | Send copies of Ranalda Tsosie's presentation to the Joint Agency Team. | Chip Poalinelli | June 17 th | complete |

| Wh | at | Who | By When | Status |
|-----|---|----------------------------------|-----------------------|--|
| 3. | Joint Agency Team to provide comments on | All | July 8 th | |
| | Ranalda's presentation/proposed project to | | | |
| | Ranaldo Tsosie and Chip Poalinelli. | | | |
| 4. | Ranalda Tsosie, Wilson Yee, and the Cove Tronox team will look for opportunities during Cove sampling events for Ranalda Tsosie to observe field activities and/or collect water samples. | Ranalda Tsosie; Wilson Yee | ongoing | Ranalda Tsosie and Wilson Yee attempted to coordinate schedules for the Cove June sampling but Ranalda had a scheduling conflict. Ranalda, Wilson and the Cove team will continue to look for coordination opportunities. |
| 5. | Provide comments on Contracting Evaluation Factors to Autumn Roe. Roe.autumn@epa.com | All | June 24 th | complete |
| 6. | Work with Navajo Nation Office of the President to identify steps forward to award US EPA grants to the Cove Chapter. a. Hold discussions with the Office of the President and the Cove Chapter, regarding the Chapter's questions about the necessity of the 164 process for certified Local Governance Act chapters; and b. Discuss Navajo Nation hiring policies and potential obstacles to the Cove Chapter's ability to hire local residents. | Wilson Yee | ongoing | Actions taken thus far include communicating to Cove Chapter President, Vice President, and Chapter Manager regarding future discussions. Meetings have not been set to date due to scheduling conflicts. EPA will continue to communicate with Chapter officials and facilitate a future meeting. |
| 7. | Send Navajo Superfund the Ambrosia Lake Engineering Evaluation/Cost Estimate memo and Removal Site Evaluation report and data. | Warren Zehner | June 24 th | complete |
| 8. | Region 6 and 9 will continue sharing and discussing documents with NNEPA. | R6/R9 | ongoing | |
| 9. | Follow up with Lisa Price about 4 curies calculation for Section 35/36 mines. EPA Region 6 estimated that there was approximately 4 Curies of radium in the soil in the impacted area from mine water discharge from Section 35 and 36 mines. | Kevin Shade | July 1 st | complete |
| 10. | Provide comments to Chip Poalinelli regarding Project XIII: Time Critical Residential Removal Action for the Tronox NAUM Section 18 Mine Site, Ambrosia Lake (see attached FY2017 Proposed Projects). | All | July 1 st | complete |

| What | Who | By When | Status |
|---|--------------------|-----------------------|----------|
| 11. Provide comments to Chip Poalinelli regarding all other projects (see attached FY2017 Proposed Projects). | All | July 29 th | |
| 12. Coordinate with Forest Service regarding presenting a case study on the San Mateo and Spencer mines. | D.J. Ennis | July 8 th | ongoing |
| 13. Send out action items and FY2017 projects. | Chip Poalinelli | June 17 th | complete |

Bike Rack

Possible topics for our next meeting in FY17 Quarter 1

- Present a case study on the San Mateo and Spencer mines
- Finalize FY17 projects

Comments

The next Tronox Joint Agency meeting will be the week of October 17th.

Thursday June 16th 8:30-5:00 pm

Opening



The meeting opened with introductions from the participants (see sign in sheet) and welcoming comments from Navajo Nation President Begaye and Dr. Benn (Navajo Nation EPA). Lori Lewis, our facilitator reviewed the agenda and logistics for the meeting. Chip Poalinelli reviewed action items from the March meeting.

Proposed Project - Development of remediation and recovery techniques for uranium and arsenic using Silica Polyamine Composites - Ranalda Tsosie

Ranalda Tsosie presented a proposed FY2017 2017 projects. (Please see PowerPoint slide file for presentation details – NNEPA Tronox Proposal.pdf).

General Comments

- Ranalda, Wilson, and the Cove Tronox team will look for opportunities during Cove sampling events for Ranalda to observe field activities and/or collect water samples.
- Joint Agency Team will provide comments on Ranalda's presentation/proposed project to Ranaldo and Chip by July 8th.

NAUM Contracting Update – Autumn Roe

Autumn Roe provided an update on contracting and the RAES special notice.

General Comments

• Important to reach out to those universities who are working with Navajo Nation (e.g. University of Arizona). Autumn clarified that USEPA is working with universities.

Project Update - Cove Mine Category Assessment Protocol - Randy Nattis





Randy Nattis provided an overview (project background, target list, field deployment, findings, priority sites, and next steps) of the MCAP assessment performed this spring. (**Please see PowerPoint slide file for presentation details MCAP – June 2016.pdf**).

General Comments

- Suggestion to work with Dine' College on field work. Randy clarified that USEPA R9 has been working with Perry Charley to identify areas/jobs that are safe for students. There might be opportunities in the analysis and other opportunities for grad students.
- Review Eugene's documentation as information is collected.
- For Navajo, preference would be to remove as much as possible.

Project Update - Cove Watershed Assessment - Wilson Yee

Wilson Yee provided an overview of the results of the Cove watershed assessment performed this spring. (Please see PowerPoint slide file for presentation details Cove Watershed – June 2016.pdf).



General/Clarifying Comments

- Navajo Nation President's Office can expedite the 164 process if the Chapter needs helps.
- The Watershed study includes analysis for both total and dissolved uranium/metals.
- There is a Health and Safety program for interns (they are wearing TLD badges). The interns will work mostly on the farm plot study.
- CERCLA only allows Tronox dollars to address man-made Cove Watershed assessment is measuring all contamination. (Man-made is disturbed, natural uranium) (CERCLA applies to Tronox EPA portion)
- Navajo Tronox \$ Can it be used for naturally occurring contamination? Navajo Nation
 DOJ will have to make a determination.
- Navajo CERCLA, Jobs, and Fundamental Law needs to be addressed at all sites.

Five Year Plan Update (Tronox Proposed Commitments) – Linda Reeves

Linda Reeves provided an overview of the proposed Tronox commitments for the Five-Year Plan. (Please see PowerPoint slide file for presentation details 5 – Year Plan – June 2016.pdf).

Schedule for finalizing 2014-2018 Five-Year Plan



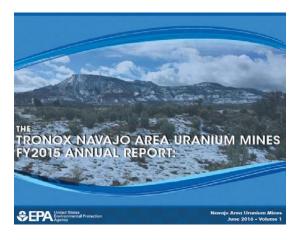
General Comments

- Include:
 - o Impact to livestock, plants, and humans
 - Community outreach networks, outreach efforts, and workshops
 - o Provide education on customary use
- Clean up = complete
- Navajo Nation's 1st priority haul off and not be left in place
- Appreciation to USEPA

Provide General Tronox Project Update - Chip Poalinelli

Chip Poalinelli provided a general Tronox Project Update. (Please see PowerPoint slide file for presentation details General Project Update – June 2016.pdf).

- Provided status of the Program Management assessment;
- Distributed and discussed the Tronox Annual Report; and
- Answered Clarifying questions.



Community Involvement – Secody Hubbard/Priscilla Tom

Secody Hubbard and Priscilla Tom provided a Community Involvement update. (Please see PowerPoint slide file for presentation details Tronox Cove CI Presentation for June 2016 Secody.pdf and Tronox Ambrosia Lake CI Presentation for June 2016 Priscilla.pdf).

General Comments

• Community Involvement Plans include interviews with residents.

Specific Project Updates

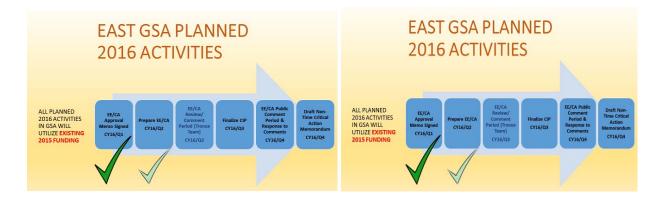
Staff reviewed Tronox project Status by Regional Area (i.e. significant accomplishments, community/stakeholder involvement, expertise and resources needs, key activities, and communication/coordination)

1. TRONOX MINE SITES Ambrosia Lake Sub-District - Warren Zehner

Warren Zehner provided an update on the **TRONOX MINE SITES Ambrosia Lake Sub-District**. Warren discussed the time critical residential removal project identified as Project XIII: Time Critical Residential Removal Action for the Tronox NAUM Section 18 Mine Site, Ambrosia Lake. (Please see PowerPoint slide file for presentation details ALSD June 2016 Quarterly.pdf).

Key Accomplishments

- ✓ EE/CA Approval Memorandum for East GSA signed and EE/CA preparation initiated
- ✓ RSA in West GSA on-going and on schedule
- ✓ Continued developing joint EPA 6 and EPA 9 Community Involvement Plan for Tronox Settlement Area
- ✓ Continued integrating Navajo Fundamental Law into CERCLA process where possible
- ✓ Monthly calls, quarterly meetings with Tronox Team

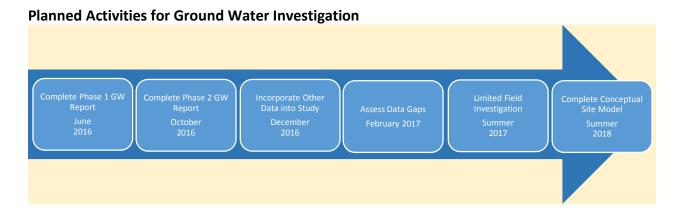


General Comments

- Joint Agency Team will provide comments on *Project XIII: Time Critical Residential Removal Action for the Tronox NAUM Section 18 Mine Site, Ambrosia Lake by July 1st.*
- Concerns about subsidence and exposure to radon gas.
- Navajo is concerned about infiltration into underground mines.

2. GROUNDWATER INVESTIGATION San Mateo Creek Basin Tronox NAUM Ambrosia Lake Impact Area – Mark Purcell

Mark Purcell provided an update on the TRONOX MINE SITES Ambrosia Lake Sub-District. (Please see PowerPoint slide file for presentation details Ambrosia Lake June 2016 Quarterly - Purcell Slides Final June 10 2016.pdf).



General Comments

Document tamarisk locations because it could help document groundwater location.

3. Eastern Agency (Quivira Mines) – Mark Ripperda

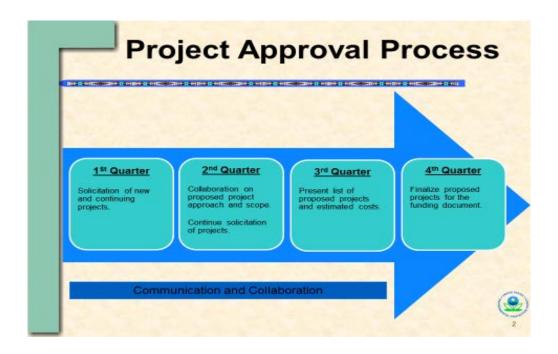
Mark Ripperda provided an update on the **TRONOX MINE SITES Ambrosia Lake Sub-District**. (Please see PowerPoint slide file for presentation details Tronox June 16 Final- Quivira Quarterly.pdf).

Tronox Quivira Mines: Upcoming Key Activities



FY2017 Proposed Projects and Approval process – Chip Poalinelli

Chip Poalinelli provided an overview of the **FY2017 Proposed Projects and Approval process** (Please see PowerPoint slide file for presentation details Tronox June 16 - Final - Tronox Proposed Projects1.pdf).



| | | Complete Street |
|---|---|-----------------|
| | Project I: Quivira Mines Removal Pre-Design Activities | ~\$400,000 |
| | Project II: Quivira Mines Utilities Rerouting | ~\$200,000 |
| | Project III: Quivira Mines Groundwater Assessment | ~1,000,000 |
| | Project IV: Mine Category Assessment Protocol Reconnaissance | ~\$200,000 |
| | Project V: Cove Chapter Interim Actions | ~\$1,000,000 |
| | Project VI: Tronox Data Management Portal: | ~\$300,000 |
| | Project VII: Cove Wash Watershed Assessment Follow-Up | ~\$600,000 |
| | Project VIII: Cove Groundwater Investigation Phase I | ~\$750,000 |
| | Project XI: Initiate Cove Remedial Investigations | ~\$1,200,000 |
| | Project X: Cove Geology Survey and Mapping | ~\$500,000 |
| | Project XI: Cooperative Agreements and Grants for Navajo Nation and | |
| | Training/EducationInstitutions | ~\$1,200,000 |
| + | Project XII: Non-time Critical Removal Site Evaluation and EE/CA | |
| | on the Central Geographic Sub-Area, Ambrosia Lake: | ~\$2,060,000 |
| + | Project XIII: Time Critical Residential Removal Action for the | |
| | Tronox NAUM Section 18 Mine Site, Ambrosia Lake | ~\$500,000 |
| | Project XIV: Ground Water Investigation Tronox NAUM Ambrosia | |
| | Lake Impact Area | \$0.0 |

General Comments

- Provide comments to Chip regarding Project XIII: Time Critical Residential Removal Action for the Tronox NAUM Section 18 Mine Site, Ambrosia Lake – Due July 1st
- Provide comments to Chip regarding all other projects **Due July 29**th
- During the next Tronox Quarterly meeting (October 2016), the team will finalize the FY2017 proposed project for funding documentation.

Closing and Next Steps

- Reviewed action items;
- Discussed case study presentation topics for future meetings;
- Next meeting the week of October 17th, 2016
- Closing comments.